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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,499	03/25/2002	Tonis Pilvisto	104-1099	2172
35236	7590	01/27/2004		
SHAFFER & CULBERTSON, L.L.P. 1114 LOST CREEK BLVD. SUITE 420 AUSTIN, TX 78746			EXAMINER FLANAGAN, BEVERLY MEINDL	
			ART UNIT	PAPER NUMBER
			3739	//
DATE MAILED: 01/27/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,499

Applicant(s)

PILVISTO, TONIS

Examiner

Beverly M. Flanagan

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/7/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

BEVERLY M. FLANAGAN
PRIMARY EXAMINER

DETAILED ACTION

Entry of Amendment

The amendment filed November 7, 2003 has been entered and made of record. Accordingly, the status of the claims is as follows: Claims 1-11 are cancelled; Claims 12-28 are newly presented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 14-23 and 25-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato (U.S. Patent No. 3,557,780).

In regard to claims 12, 14-18, 21, 23, 25 and 26, Sato teaches an endoscope comprised of controllable flexible portion (having sections I-III) and a control portion V which houses the mechanism for actuating the flexible portion sections I-III (see Figure 3 and col. 3, lines 1-4). Flexible portion sections II and II contain tubular segments 8, 8' that have small holes 12, 12', 14, 14' on their inner periphery through which control wires 13, 13', 15, 15' extend (see Figure 5B). Wires 13, 13', 15, 15' are connected to the periphery of control drums 16 and 17 provided in control portion V (see col. 3, lines 40-57). When a level 21 is rotated, control drum 17 is actuated to pull wire 15' and loosen wire 15 and by virtue of the engagement of gears 22 and 25, control drum 16

also rotates, thereby pulling and loosening wires 13 and 13' (see col. 4, lines 1-20). Another level 27 also acts upon wires 13 and 13' (see col. 4, lines 20-29). Sato also teaches a brakedrum 30 that, through actuations of several elements, acts to lock lever 21 in position (see col. 5, lines 5-25) and thereby fix the control wires 13, 13', 15, 15' in place. **In regard to claims 19, 20 and 27**, Figure 5B of Sato shows a longitudinal channel provided within the interior of the endoscope through which optical image and light guide can pass. **In regard to claim 22**, see Figure 5B. **In regard to claims 28 and 29**, inherent in the structure disclosed by Sato are the method steps outlined in claims 28 and 29 of the instant invention. Furthermore, the endoscope of Sato is capable of performing the method steps of placing the control wires 13, 13', 15, 15' in a freely moveable position (without the brakedrum 30 and associated mechanisms engaged), bending the flexible portions of the endoscope to the desired shape, locking the flexible portions into the desired shape by actuating brakedrum 30, inserting the endoscope into an orifice, releasing the brakedrum 30 and bending the flexible portions of the endoscope, and, as in claim 29, repeating the entire process to achieve a different bent shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (U.S. Patent No. 3,557,780), as applied above, and further in view of Kovalcheck (U.S. Patent No. 5,549,542).

In regard to claims 13 and 24, Sato is silent as to the flexible portions I-III of the endoscope having a leaf spring with a ring-shaped cross section. However, Kovalcheck discloses a similar endoscope having a coil spring 132 or a coil ribbon 144 with a ring-shaped cross section (see Figures 11 and 13). The coil spring 132 and the coil ribbon 144 are alternate structures for the shaft of the endoscope. Furthermore, it is well known in the art of endoscopes to provide the endoscope with a multi-layer tube that overlies the articuable segments, where the layers are generally a metal coil, overlaid by a mesh braid, and further overlaid by a resin tube. This tube structure is used to protect the interior components of the endoscope, to enhance and protect the operability of the articuable segments. Since Sato teaches the articuable segments, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the endoscope of Sato with the multi-layer tube structure. It follows that it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide the endoscope of Sato with the coil spring 132 or coil ribbon 144 of Kovalcheck.

Response to Arguments

Applicant's arguments with respect to claims 12-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

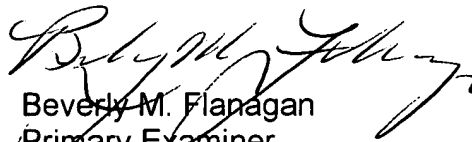
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beverly M. Flanagan whose telephone number is (703) 305-7202. The examiner can normally be reached on Mondays, Tuesdays and Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (703) 308-0994. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.


Beverly M. Flanagan
Primary Examiner
Art Unit 3739
